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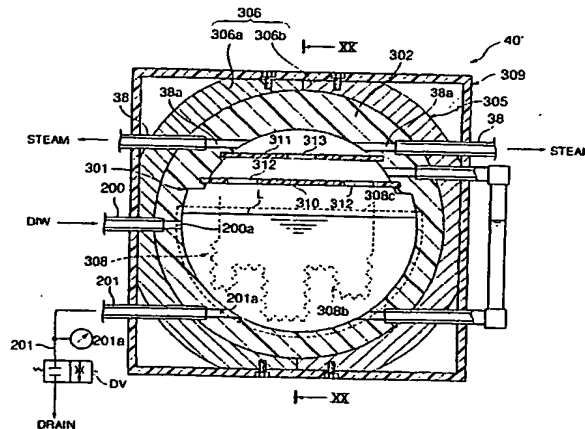
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(21) 国際出願番号: PCT/JP2003/008048 (75) 発明者/出願人 (米国についてのみ): 伊藤 規宏 (ITO, Norihiro) [JP/JP]; 〒841-0074 佐賀県 鳥栖市 西新町 1 3 7 5-4 1 東京エレクトロン九州株式会社 佐賀事業所内 Saga (JP). 川口 洋明 (KAWAGUCHI, Hiroaki) [JP/JP]; 〒841-0074 佐賀県 鳥栖市 西新町 1 3 7 5-4 1 東京エレクトロン九州株式会社 佐賀事業所内 Saga (JP). 長野 泰博 (CHOUNO, Yasuhiro) [JP/JP]; 〒841-0074 佐賀県 鳥栖市 西新町 1 3 7 5-4 1 東京エレクトロン九州株式会社 佐賀事業所内 Saga (JP).
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(54) Title: SUBSTRATE PROCESSING DEVICE

(54) 発明の名称: 基板処理装置



(57) Abstract: A vapor generator (40') provided in a substrate processing device comprises a hollow cylinder-like member (302) formed from a composite of PTFE and PFA, and a tank (301) having a pair of side wall plates (303) connected to both ends of the cylinder-like member (302). The side wall plates (303) are formed of aluminum alloy, and PFA coating is applied on the inner faces of the plates. The periphery of the tank (301) is covered by an aluminum alloy shell (305) for preventing the tank from deforming caused by interior pressure of the tank. Heaters (308) are installed on the outer faces of plate-like members (307) of the shell (305). The shell (305) binds the tank (301), presses and crushes elastic seals (304) between the cylinder-like member (302) and the side wall plates (303), and effects sealing and joint between the cylinder-like member (302) and the side wall plates (303).

(57) 要約: 基板処理装置に設けられる蒸気発生器 40' は、PTFEとPFAの混合物からなる中空円筒状部材 302と、該円筒状部材 302の両端に接続された一対の側壁板 303とを有するタンク 301を備えている。側壁板 303はアルミニウム合金からなり、その内面にPFA被覆が施されている。タンク 301の周囲は、タンク内圧に起因するタンクの変形を防止するためのアルミニウム合金製のシェル 305により覆われている。シェル 305の板状部材 307の外面にはヒータ 30

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(81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) 指定国 (広域): ARIPO 特許 (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB,

GR, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI 特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NI, SN, TD, TG).

添付公開書類:

- 国際調査報告書
- 請求の範囲の補正の期限前の公開であり、補正書受領の際には再公開される。

2 文字コード及び他の略語については、定期発行される各 PCT ガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/08048

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl.⁷ H01L21/304

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.⁷ H01L21/304

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1940-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-1996	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5063609 A (APPLIED MATERIALS INC.), 11 October, 1989 (11.10.89), Fig. 2 & JP 3-137401 A Fig. 2 & EP 422653 A	1, 2, 5, 12
Y	JP 2002-110611 A (Texas Instruments Japan Ltd.), 12 April, 2002 (12.04.02), Page 2, right column, line 50; page 3, left column, lines 21 to 24; Fig. 1 (Family: none)	1, 2, 14-16

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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Date of the actual completion of the international search
30 September, 2003 (30.09.03)Date of mailing of the international search report
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Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/08048

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 9-251975 A (Sakaguchi Dennnnetzu Kabushiki Kaisha), 22 September, 1997 (22.09.97), Page 2, left column, lines 25 to 26 (Family: none)	1, 8
Y	JP 2000-91288 A (Purex Co., Ltd.), 31 March, 2000 (31.03.00), Page 6, left column, lines 32 to 33 (Family: none)	2
Y	JP 2001-252550 A (Yokogawa Electric Corp.), 18 September, 2001 (18.09.01), Page 2, right column, lines 8 to 20 (Family: none)	2
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Y	JP 9-199472 A (Komatsu Electronics Kabushiki Kaisha), 31 July, 1997 (31.07.97), Page 2, left column, lines 40 to 41 (Family: none)	4, 7
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 238/1984 (Laid-open No. 128733/1984) (NEC Corp.), 30 August, 1984 (30.08.84), Full text; Figs. 1 to 2 (Family: none)	9
Y	JP 10-55991 A (Hitachi, Ltd.), 24 February, 1998 (24.02.98), Page 2, left column, line 35 (Family: none)	10, 11
Y	US 5520743 A (TOKYO ELECTRON KABUSHIKI KAISHA), 31 August, 1993 (31.08.93), Column 2, lines 33 to 46 & JP 6-84864 A Page 2, right column, lines 34 to 41 & KR 276426 B	12, 13